Please provide the following information, and submit to the NOAA DM Plan Repository.

Reference to Master DM Plan (if applicable)

As stated in Section IV, Requirement 1.3, DM Plans may be hierarchical. If this DM Plan inherits provisions from a higher-level DM Plan already submitted to the Repository, then this more-specific Plan only needs to provide information that differs from what was provided in the Master DM Plan.

URL of higher-level DM Plan (if any) as submitted to DM Plan Repository:

1. General Description of Data to be Managed

> **1.1. Name of the Data, data collection Project, or data-producing Program:**
> Santa Clara County, California

> **1.2. Summary description of the data:**
> LAS format files, raw LiDAR data in its native format, classified bare-earth LiDAR DEM and photogrammetrically derived breaklines generated from LiDAR Intensity stereo-pairs. Breakline, Top of Bank, and contour files in ESRI personal geodatabase format, Microstation V8 .dgn format, and AutoCAD 2004 formats for the San Jose Phase 3 project of Santa Clara County, Ca. This project arrived with only unclassified data. NOAAs Office for Coastal Management performed an automated classification using lasground. Although class 1 and class 2 are available, there was no QA/QC on the points after lasground was performed. Points below -40 meters NAD83 ellipsoid height were further classified as noise (class 7).

> **1.3. Is this a one-time data collection, or an ongoing series of measurements?**
> One-time data collection

> **1.4. Actual or planned temporal coverage of the data:**
> 2006-04-06 to 2006-05-01

> **1.5. Actual or planned geographic coverage of the data:**
> W: -122.2575073242, E: -121.1956787109, N: 37.5089111328, S: 36.8842773438

> **1.6. Type(s) of data:**
> *(e.g., digital numeric data, imagery, photographs, video, audio, database, tabular data, etc.)*
> las

> **1.7. Data collection method(s):**
> *(e.g., satellite, airplane, unmanned aerial system, radar, weather station, moored buoy, research vessel, autonomous underwater vehicle, animal tagging, manual surveys, enforcement activities, numerical model, etc.)*

> **1.8. If data are from a NOAA Observing System of Record, indicate name of system:**

1.8.1. If data are from another observing system, please specify:

2. Point of Contact for this Data Management Plan (author or maintainer)

2.1. Name:
NOAA Office for Coastal Management (NOAA/OCM)

2.2. Title:
Metadata Contact

2.3. Affiliation or facility:
NOAA Office for Coastal Management (NOAA/OCM)

2.4. E-mail address:
coastal.info@noaa.gov

2.5. Phone number:
(843) 740-1202

3. Responsible Party for Data Management
Program Managers, or their designee, shall be responsible for assuring the proper management of the data produced by their Program. Please indicate the responsible party below.

3.1. Name:

3.2. Title:
Data Steward

4. Resources
Programs must identify resources within their own budget for managing the data they produce.

4.1. Have resources for management of these data been identified?

4.2. Approximate percentage of the budget for these data devoted to data management (specify percentage or "unknown"):

5. Data Lineage and Quality
NOAA has issued Information Quality Guidelines for ensuring and maximizing the quality, objectivity, utility, and integrity of information which it disseminates.

5.1. Processing workflow of the data from collection or acquisition to making it publicly accessible
(describe or provide URL of description):
Process Steps:

- Each strip was imported into a project using TerraScan (Terrasolid, Ltd.) and the project management tool GeoCue (GeoCue Corp.). By creating a project the various flightlines are combined while breaking the dataset as a whole into manageable pieces. This process also converts the dataset from geographic coordinates to the State Plane Coordinate System (NAD83), California III. The ellipsoid height values were converted to NAVD88 orthometric values using Geoid03, provided by NGS. Individual lines were then checked against adjacent lines to ensure a cohesive dataset. The data from each line were then combined and a classification routine was then run to determine the initial surface model. This initial surface model was then reduced using Optimal Geomatics' proprietary methods to create the final bare-earth dataset. A Triangular Irregular Network (TIN) was generated using the final surface data. Contours were then created from the TIN. The bareearth data were then checked against the validation points across the project area. The results of these checks showed the DEM fitting the validation points well (see LiDAR DEM Quality Control Report for results). Stereo pairs were generated from the LiDAR intensity data using Geocue and LiDAR1CuePac (GeoCue Corp.). LiDARgrammetry was then utilized to collect breaklines where necessary along hydro features to support the contour generation. These breaklines were collected as a 3D element in the MicroStation (Bentley Systems, Inc.) environment utilizing ISSD (Z/I Imaging). The breaklines, top of bank (TOB), contour files were delivered in MicroStation v8, AutoCAD 2004 and ESRI formats. The LiDAR point data were delivered in LAS and ASCII formats. LiDAR orthos were delivered in TIF/TFW format.
- 2015-03-20 00:00:00 - The NOAA Office for Coastal Management (OCM) received the files in laz format from USGS via an FTP online repository. The files contained lidar elevation and intensity measurements. The data were in California State Plane Zone 403, NAVD88 (orthometric) heights in feet. OCM performed the following processing for data storage and Digital Coast provisioning purposes: 1. The data were converted from State Plane coordinates to geographic coordinates. 2. The data were converted from NAVD88 (orthometric) heights in meters to GRS80 (ellipsoid) heights in meters using Geoid 03. 3. The LAS data were sorted by latitude and the headers were updated. 4. Because data was received as all Class 1 (unclassified), an automated classification program (lasground) was used to determine ground points. For the urban area [metropolitan,default] was used as the option, and for the eastern and western collections [wilderness,fine] was the options. This is an automated classification and no QA/QC was performed post classification. 5. Duplicate points were removed. 6. Project was retiled.
- 2017-10-06 00:00:00 - Points below -40 meters ellipsoid height (approximately -8 meters NAVD88) were reclassified as low noise points (class 7).

5.1.1. If data at different stages of the workflow, or products derived from these data, are subject to a separate data management plan, provide reference to other plan:

5.2. Quality control procedures employed (describe or provide URL of description):

6. Data Documentation

The EDMC Data Documentation Procedural Directive requires that NOAA data be well documented, specifies the use of ISO 19115 and related standards for documentation of new data, and provides links to resources and tools for metadata creation and validation.

6.1. Does metadata comply with EDMC Data Documentation directive?
No

6.1.1. If metadata are non-existent or non-compliant, please explain:
Missing/invalid information:
- 1.7. Data collection method(s)
- 3.1. Responsible Party for Data Management
- 4.1. Have resources for management of these data been identified?
- 4.2. Approximate percentage of the budget for these data devoted to data management
- 5.2. Quality control procedures employed
- 7.1. Do these data comply with the Data Access directive?
- 7.1.1. If data are not available or has limitations, has a Waiver been filed?
- 7.1.2. If there are limitations to data access, describe how data are protected
- 7.4. Approximate delay between data collection and dissemination
- 8.1. Actual or planned long-term data archive location
- 8.3. Approximate delay between data collection and submission to an archive facility
- 8.4. How will the data be protected from accidental or malicious modification or deletion prior to receipt by the archive?

6.2. Name of organization or facility providing metadata hosting:
NMFS Office of Science and Technology

6.2.1. If service is needed for metadata hosting, please indicate:

6.3. URL of metadata folder or data catalog, if known:
https://www.fisheries.noaa.gov/inport/item/49636

6.4. Process for producing and maintaining metadata
(describe or provide URL of description):
Metadata produced and maintained in accordance with the NOAA Data Documentation Procedural Directive: https://nosc.noaa.gov/EDMC/DAARWG/docs/EDMC_PD-Data_Documentation_v1.pdf

7. Data Access

NAO 212-15 states that access to environmental data may only be restricted when distribution is explicitly limited by law, regulation, policy (such as those applicable to personally identifiable information or protected critical infrastructure information or proprietary trade information) or by

security requirements. The EDMC Data Access Procedural Directive contains specific guidance, recommends the use of open-standard, interoperable, non-proprietary web services, provides information about resources and tools to enable data access, and includes a Waiver to be submitted to justify any approach other than full, unrestricted public access.

7.1. Do these data comply with the Data Access directive?

7.1.1. If the data are not to be made available to the public at all, or with limitations, has a Waiver (Appendix A of Data Access directive) been filed?

7.1.2. If there are limitations to public data access, describe how data are protected from unauthorized access or disclosure:

7.2. Name of organization of facility providing data access:
NOAA Office for Coastal Management (NOAA/OCM)

7.2.1. If data hosting service is needed, please indicate:

7.2.2. URL of data access service, if known:
https://coast.noaa.gov/dataviewer/#/lidar/search/where:ID=4870
https://coast.noaa.gov/htdata/lidar1_z/geoid18/data/4870

7.3. Data access methods or services offered:
This data can be obtained on-line at the following URL:

https://coast.noaa.gov/dataviewer/#/lidar/search/where:ID=4870

The data set is dynamically generated based on user-specified parameters.;

7.4. Approximate delay between data collection and dissemination:

7.4.1. If delay is longer than latency of automated processing, indicate under what authority data access is delayed:

8. Data Preservation and Protection
The NOAA Procedure for Scientific Records Appraisal and Archive Approval describes how to identify, appraise and decide what scientific records are to be preserved in a NOAA archive.

8.1. Actual or planned long-term data archive location:
(Specify NCEI-MD, NCEI-CO, NCEI-NC, NCEI-MS, World Data Center (WDC) facility, Other, To Be Determined, Unable to Archive, or No Archiving Intended)

8.1.1. If World Data Center or Other, specify:

8.1.2. If To Be Determined, Unable to Archive or No Archiving Intended, explain:

8.2. Data storage facility prior to being sent to an archive facility (if any):
Office for Coastal Management - Charleston, SC

8.3. Approximate delay between data collection and submission to an archive facility:

8.4. How will the data be protected from accidental or malicious modification or deletion prior to receipt by the archive?
Discuss data back-up, disaster recovery/contingency planning, and off-site data storage relevant to the data collection

9. Additional Line Office or Staff Office Questions
Line and Staff Offices may extend this template by inserting additional questions in this section.